SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ***STATIONARY SOURCE COMPLIANCE DIVISION*** APPLICATION PROCESSING AND CALCULATIONS	Pages 18	Page 1
	Appl. Nos. 500107/ 501042	Date 04/09/10
	Processed By Rafik Beshai	Checked By

PERMIT TO CONSTRUCT

COMPANY NAME: BP West Coast Products LLC - Facility ID: 131003

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Carson, CA 90749

EQUIPMENT ADDRESS: 2350 East 223rd Street
Carson, CA 90810

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
Process 8: HYDROCRACKING					
System 1: HYDROCRACKER UNIT (REACTION SECTION)					S13.2, S31.9, S46.1, S46.2, S56.1
REACTOR, FIRST STAGE, RPV 3500, R-1 A/N ~~450840~~ 501042	D576				E193.18
REACTOR, FIRST STAGE, RPV 3501, R-2 A/N ~~450840~~ 501042	D577				E193.18
REACTOR, FIRST STAGE, RPV 3502, R-3 A/N ~~450840~~ 501042	D578				
REACTOR, SECOND STAGE, RPV 3503, R-4 A/N ~~450840~~ 501042	D579				
VESSEL, SEPARATOR, HIGH PRESSURE, RPV 3511 A/N ~~450840~~ 501042	D581				
VESSEL, COALESCER, RPV 3512, HPS WATER COALESCER, INTERNALS REPLACEMENT A/N~~450840~~ 501042	D582				

VESSEL, SEPARATOR, LOW PRESSURE, RPV 3513, HEIGHT: 44 FT; DIAMETER: 10 FT A/N ~~450840~~ 501042	D583				
TANK, SURGE, RPV-5631, FEED; HEIGHT: 40 FT; DIAMETER: 10 FT A/N ~~450840~~ 501042	D584				
~~SCRUBBER, CAUSTIC, RPV 0765, DISTILLATE HYDROCRACKER, HEIGHT: 20 FT; DIAMETER: 6 FT~~ ~~A/N 450840~~ ~~501042~~	~~D592~~				
KNOCK OUT POT, EAST FUEL GAS, RPV 3211, HEIGHT: 7 FT 9 IN; DIAMETER: 5 FT A/N ~~450840~~ 501042	D593				
KNOCK OUT POT, SEPARATOR, EAST, INSTRUMENT AIR, RPV 3636, HEIGHT: 1 FT 8 IN; DIAMETER: 1 FT 2 IN A/N ~~450840~~ 501042	D594				
TANK, FLASH, RPV 5649, SOUR WATER, HEIGHT: 5 FT 9 IN; DIAMETER: 2 FT 6 IN A/N ~~450840~~ 501042	D595				
FILTER, RPV 5752. FRACTIONATOR/JET FUEL, HEIGHT: 12 FT; DIAMETER: 24 FT A/N ~~450840~~ 501042	D596				
FILTER, REACTOR HEATER FUEL GAS, RPV-5753, HEIGHT: 10 FT; DIAMETER: 2 FT A/N ~~450840~~ 501042	D597				
DRUM, KNOCK OUT, MAKE UP COMPRESSOR, WITH NITROGEN BLANKET, HEIGHT: 6 FT; DIAMETER; 1 FT A/N ~~450840~~ 501042	D598				

TANK, SURGE, NO. 913, RECYCLE SURGE, 3750 BBL; DIAMETER: 30 FT; HEIGHT: 30 FT A/N ~~450840~~ 501042	D599			HAP: (10)[40 CFR 63 Subpart CC, #2, 6-23-2003]	
TANK, NORTH MAKE UP COMPRESSOR OIL RESERVOIR, WITH NITROGEN BLANKET, 60 GALS; DIAMETER: 1 FT 8 IN; HEIGHT: 4 FT A/N ~~450840~~ 501042	D600				
TANK, SOUTH MAKE UP COMPRESSOR RESERVOIR, WITH NITROGEN BLANKET, 600 GALS; DIAMETER: 2 FT 6 IN; HEIGHT: 16 FT A/N ~~450840~~ 501042	D601				
COMPRESSOR, RW 10 087.6 RECYCLE GAS, CENTRIFUGAL, CLARK MODEL 2 BA, HIGH EFFICIENCY ROTOR A/N ~~450840~~ 501042	D602				
COMPRESSOR, RW 20 087.32, NO. 1, MAKE-UP GAS, RECIPROCATING TYPE, WORTHINGTON 4 STAGE NO. L-81794 B, MODEL BDO-4 A/N ~~450840~~ 501042	D603				
COMPRESSOR, RW 21 087.32, NO. 2, MAKE-UP GAS, RECIPROCATING TYPE, WORTHINGTON 4 STAGE NO. L-81794 B, MODEL BDO-4 A/N ~~450840~~ 501042	D604				
VESSEL, COALESCER, RPV 5525, SOUTH FEED COALESCER, HEIGHT: 9 FT 6 IN; DIAMETER: 3 FT 6 IN A/N ~~450840~~ 501042	D1470				
VESSEL, COALESCER, RPV 5526, NORTH FEED COALESCER, HEIGHT: 9 FT 6 IN; DIAMETER: 3 FT 6 IN A/N ~~450840~~ 501042	D1471				

~~FILTER, RPV 5527, NORTH FEED, HEIGHT: 6 FT 6 IN; DIAMETER: 3 FT~~ ~~A/N 450840~~	~~D1472~~				
~~FILTER, RPV 5528, SOUTH FEED, HEIGHT: 6 FT 6 IN; DIAMETER: 3 FT~~ ~~A/N 450840~~	~~D1473~~				
FILTER, RPV 5527, NORTH FEED, HEIGHT: 5 FT 11 IN; DIAMETER: 4 FT 6 IN A/N 501042	DX1				
FILTER, RPV 5528, SOUTH FEED, HEIGHT: 5 FT 11 IN; DIAMETER: 4 FT 6 IN A/N 501042	DX2				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N ~~450840~~ 501042	D2494			HAP: (10)[40 CFR 63 Subpart CC, #5A, 6-23-2003]	H23.3

BACKGROUND

BP West Coast Products LLC (Facility ID: 131003) has submitted A/Ns 500107 and 501042 for Alteration/Modification of equipment under Process 8: Hydrocracking, System 1: Hydrocracker Unit (Reaction Section). The project is entitled "Hydrocracker Optimization and Water Wash Project." A/N 500107 addresses amendment of the RECLAIM/Title V permit and A/N 501042 addresses Modification of the subject equipment. The project proposes to increase the feed rate processed through the Hydrocracker Unit by removing hydraulic and thermal constraints and optimizing heat exchanger performance. An additional objective of the project is to upgrade the Hydrocracker Unit water wash system to current BP standards. A Title V permit was issued to this facility on September 1, 2009.

A further amendment of Process 8, System 1 is removal of Caustic Scrubber (Device ID: D592) from the permit. In an e-mail message submitted on February 9, 2010 (Attachment #1), BP states that this device has been demolished and removed from the site. Therefore, the device is eliminated from this Permit to Construct (PC). Attachment #3 is a Maximo Record which states that this equipment has been removed/scrapped.

Separate from this submittal, BP has submitted A/N 408330 to the District, seeking a Permit to Operate (PO) for Tank No. 913 (D599). Under this application BP seeks to permit this tank separately from Process 8, System 1. This storage tank will be listed under Process 16:

Petroleum Storage Tanks, System 1: Fixed Roof Tanks. The District has not completed processing of this application, therefore Tank No. 913 remains listed under Process 8, System 1.

The permit history of this equipment follows in the table below. In addition to listing of permits and applications under which PCs were issued, the table also states the ROG emissions rate entered into the District's New Source Review (NSR) record for each application.

Application No.	Process No.	System No.	Previous P/O	Date	Permitting & Emissions History
501042	8	1	488606/PC 450840/PC 435120/F79736 395501/F50257 273205/D98574 A35723/P23992	6/2/2009 9/19/2006 12/12/2005 3/15/2002 4/30/1996 3/9/1978	A PC was issued for the subject equipment, under A/N 488606, on June 2, 2009. Under this PC, it was planned to connect a Process Safety Valve (PSV) on Separator Vessel (Device D581) to a closed vent system, venting to the Hydrocracker Flare. A ROG emissions rate of 108 lbs/day (lbs/day – 30 day average), equal to 4.51 lbs/hr, was entered in NSR records. (Note: in a letter submitted to the District on February 18, 2010, BP requests cancellation of this PC – Attachment #2). Previously, a PC was issued for the subject equipment on September 19, 2006, under A/N 450840. Under this PC it was planned to modify the Hydrocracker Unit to increase capacity, resulting in increased production of low sulfur gasoline, ultra low sulfur diesel fuel, and jet fuel. Specifically, it was planned to modify Reactors (Devices D576 and D577) by replacement of distributor trays. For this application, a ROG emissions rate of 138 lbs/day (lbs/day – 30 day average) equal to 5.73 lbs/hr, is entered under NSR. Previously, the equipment was permitted under Permit No. F79736 (A/N 435120), issued on December 12, 2005. This application involved an Administrative Change to the permit, to revise equipment description for several devices and to eliminate listing of devices which were demolished (Devices D605 and D606). No ROG emissions rate is stated in NSR records, but the AEIS sheet indicates controlled/uncontrolled emissions of 0.23 lbs ROG/hr.

				Previously, the equipment was permitted under Permit No. F50257 (A/N 395501), issued on March 15, 2002. This application involved Change of Ownership from ARCO Products Co. to BP West Coast Products LLC. No ROG emissions rate is stated in the NSR records. Previously, this equipment was permitted under Permit No. D98574 (A/N 273205), issued on April 30, 1996. Under this application the Hydrocracker Unit was modified to increase the capacity from 23 MBPD to 40 MBPD, by splitting four reactors operated in series into two sets of reactors operated in parallel, with once-through operation. No ROG emissions rate is stated in the NSR record, but the AEIS sheet indicates controlled and uncontrolled emissions of 0.23 lbs ROG/hr. Previously, this equipment was permitted under Permit No.P23992 (A/N A35723), issued on March 9, 1978.

Based on a review of District records, there have been no Notices of Violation (NOV) or Notices to Comply (NTC) issued for the subject equipment over the past three years.

PROCESS DESCRIPTION

The Hydrocracker Unit at the BP Carson Refinery functions to crack long chain gas oil molecules into smaller molecules, using a catalytic process in a hydrogen-rich atmosphere. Cracking of long chain molecules occurs in a high temperature, high pressure environment. Currently, the unit processes a combined feed rate of approximately 50,000 barrels per day. These feed streams include approximately 13,000 barrels per day of FCC Jet Fuel, approximately 5,000 barrels per day of FCC Light Cycle Oil (LCO), approximately 9,000 barrels per day of coker diesel, and approximately 23,000 barrels per day of straight run diesel. Products of the process include light hydrocrackate and heavy hydrocrackate in the gasoline boiling range, jet boiling range material, a diesel stream, and other light products.

The primary objective of this project is to remove hydraulic and thermal constraints in the system, in order to increase the feed rate through the Hydrocracker Unit, from 50,000 barrels per day to 55,000 barrels per day, when in a low conversion (diesel) operating mode. The 5,000 barrel per day feed rate increase will result from an increase in straight run diesel throughput, from 23,000 barrels per day to 28,000 barrels per day. In conjunction with these changes, the Hydrocracker Unit water wash system will also be upgraded. This upgrade is not expected to affect pollutant emissions.

The equipment modifications, which are expected to result in an increase in feed rate of 5,000 barrels per day, include the following:

- installation of a new heat exchanger (not subject to permitting per condition F25.1),
- replace two existing pre-filters, RPV 5527 (device ID: D1472), and RPV 5528 (D1473) with larger capacity pre-filters,
- replace the rotor of the recycle gas compressor, RW 0010-087.06 (D602) with a new high efficiency rotor,
- modification of several heat exchangers by replacement of tube bundles - RPV 5533, RPV 5534, RPV 3571, and RPV 3572 (not subject to permitting per condition F25.1),
- change in shell side service of one heat exchanger (RPV 3653), with no hardware modifications (not subject to permitting per condition F25.1),
- modification of piping and control systems, as required for the new operation.

The modification of the Hydrocracker Unit water wash system, to meet current BP standards, will include the following:

- installation of a new recycle sour water pump (not subject to permitting per condition F25.1),
- modification of the HP Separator Water Coalescer, RPV 3512 (D582), by replacement of the coalescing media.

The equipment modification will include removal and addition of piping and components in VOC service.

Under the normal operating schedule, the equipment operates 52 weeks per year, 7 days per week, and 24 hours per day.

EMISSIONS

The project involves addition and removal of piping and VOC fugitive components. As shown in the table below, based on the number of components to be installed (added) and the number to be eliminated (removed), the project is expected to result in an overall reduction in VOC emissions.

Fugitive VOC Components – Process 8, System 1

New Source Unit		Service	Number of Components in Existing System	Number of Components Added/ Removed	Number of Components in Modified System	ROG Emissions Factor (lb/yr)	Pre-modification Annual Emissions (lbs/yr)	Change in Annual Emissions (lbs/yr)	Post-modification Annual Emissions (lbs/yr)
Valves	Sealed Bellows	Gas/Vapor and Light Liquid	9	+10	19	0.0	0	0	0
	SCAQMD Approved I & M Program	Gas/Vapor	1271	-4	1267	23	29,233	-92	29,141
		Light Liquid	203	-3	200	19	3,857	-57	3,800
		Heavy Liquid	384	0	384	3	1,152	0	1,152
Pumps	Seal-less Type	Light Liquid	0	0	0	0	0	0	0
	Double Mechanical Seals or Equivalent Seals	Light Liquid	3	0	3	104	312	0	312
	Single Mechanical Seal	Heavy Liquid	12	0	12	80	960	0	960
Compressors		Gas/Vapor	1	0	1	514	514	0	514
Flanges and Connectors		All	11425	+4	11429	1.5	17,137.5	6	17,143.5
Pressure Relief Valves		All	28	0	28	0	0	0	0
Process Drains with P-Trap and Seal Pot		All	63	0	63	80	5,040	0	5,040
						Total Lbs/yr	58,205.5	-143	58,062.5
						Total Lbs/day	159.47 (162 lbs/day – 30 day avg.)	-0.39	159.08 (161 lbs/day – 30 day avg.)
						Total Lbs/hr	6.64	-0.02	6.63

Notes: Emissions factors basis is 500 ppm leakage limit and monthly Inspection and Maintenance Program.

The baseline fugitive component count for this project differs significantly from component counts previously submitted to the District. Attachment #4 is an explanation regarding the differences in fugitive component counts, for this project relative to previous counts.

Attachment #5 contains a re-inventory of fugitive components. It presents a re-inventory of fugitive components associated with the current project (A/N 501042) as well as that permitted in 2006 under A/N 450840 (note: since BP has requested a cancellation of A/N 488606, no explanation for the inconsistency of the fugitive component count associated with this project was offered). BP states that the reasons for the inconsistency in the fugitive

component count submitted to the District in 2006 (associated with A/N 450840), are as followings:

- BP incorrectly assumed that a significant number of lines and components serving vessels in the Hydrocracker Reaction section were in Heavy Liquid service. These were not included in the 2006 baseline supplied to the District. BP has now identified many components as being in Gas Vapor service and has added them to the current baseline count. These are existing components (i.e. they existed in 2006).
- BP significantly underestimated components in Heavy Liquid service in the 2006 submittal. This is due to the Rule 1173 requirement that only pumps in Heavy Liquid service be inventoried and monitored. Therefore, the 2006 submittal only included a few tagged Heavy Liquid components. BP has now estimated the number of Heavy Liquid components (valves and flanges) based on the number of pumps in Heavy Liquid service and has amended the counts appropriately.
- BP has identified a compressor in VOC service which must be included in the 2008 and 2006 baselines. Process 8, System 1 also includes two other compressors, which are in hydrogen gas make-up service and are thus excluded in these counts.

Since the project is expected to result in a reduction in ROG emissions and since emissions of Toxic Air Contaminant (TAC)s are typically a function of total ROG emissions, a reduction in TAC emissions is also expected. Due to this expected decrease, the change in TAC emissions due to the subject modification has not been quantified.

RULE EVALUATION

CEQA – California Environmental Quality Act

Under CEQA, a significant project is one associated with the emissions levels stated below, during the operation phase of the project:

- CO 550 lbs/day
- VOC 55 lbs/day
- NOx 55 lbs/day
- SOx 150 lbs/day
- PM10 150 lbs/day

The subject project does not have a potential for a significant environmental impact. A CEQA analysis, in the form of an Environmental Impact Report (EIR), is not required since there is no increase in criteria air pollutant emissions and there are no other significant environmental impacts.

Rule 212 – Standards for Approving Permits

This rule requires public noticing for a modification or a new source located within 1000 feet of a school, if toxic air contaminants associated with the project result in exposure to a Maximum Individual Cancer Risk (MICR) of $1x10^{-6}$ or greater during a lifetime (70 years), or if the project results in an emissions increase exceeding limits stated in Rule 212(g). The equipment is not within 1000 feet of a school, there will be no emissions increase exceeding the limits stated in 212(g) and the subject project does not have the potential to increase TAC emissions, therefore a screening Health Risk Assessment (HRA) is not required. Public notice requirement under Rule 212 is not triggered.

Rule 401 – Visible Emissions

Operation of the Hydrocracker Unit is not expected to result in emissions with a shade as dark as or darker than that designated Ringelmann No. 1, by the US Bureau of Mines, for a period of 3 minutes in any hour. Compliance with this rule is expected.

Rule 402 – Nuisance

The Hydrocracker Unit will not discharge air pollutants which cause injury, detriment, nuisance, or annoyance to a considerable number of people or to the public. Over the past three years the facility has not been issued any Notices of Compliance (NTC) or Notices of Violation (NOV) due to Rule 402 violations associated with the Hydrocracker Unit. Compliance with this rule is expected.

Rule 404 – Particulate Matter - Concentration

This rule limits particulate matter concentration to a maximum of 0.196 grains per cubic foot. The Hydrocracker Unit, Reaction Section does not have vent streams which emit particulate matter. Compliance with this rule is expected.

Rule 407 – Liquid and Gaseous Air Contaminants

This rule limits emissions of carbon monoxide (CO) to 2000 ppm, measured on a dry basis and averaged over 15 minutes and emissions of sulfur, calculated as sulfur dioxide (SO_2) and averaged over 15 minutes, to 500 ppm. The Hydrocracker Unit, Reaction Section does not have vent streams which emit CO or SO_2. Compliance with this rule is expected.

Reg. IX - New Source Performance Standards

Since the project results in no increase in pollutant emissions it is not considered a "modification" under Section 60.14 and therefore it is not subject to any additional New Source Performance Standards (NSPS) requirements. Per permit condition H23.3, fugitive VOC components in the Hydrocracker Unit, Reaction Section are

required to meet standards promulgated under 40 CFR 60 Subpart GGG. This regulation requires that fugitive components meet standards stated in Sections 60.482-1 through 60.482-10, as soon as practicable, or within 180 days of equipment startup. Compliance with these standards, for new and existing fugitive components, is expected.

Rule 1173 – Fugitive Emissions of Volatile Organic Compounds

This rule specifies leak control, identification, operation, inspection, maintenance, and recordkeeping requirements for all VOC components. New and existing VOC fugitive components are incorporated into the facility's inspection and monitoring program. Continued compliance with the requirements of this rule is expected.

Reg. XIII - New Source Review:

This rule has requirements for the utilization of Best Available Control Technology (BACT), providing emissions offsets for an increase in emissions, and performing air quality modeling to assess the impacts of the project on ambient air quality. Since the subject project does not result in an increase in criteria pollutants, it is exempt from the requirements of this rule.

Rule 1401 – New Source Review of Carcinogenic Air Contaminants

This rule has requirements including that the Maximum Individual Cancer Risk (MICR) associated with the project be under $1x10^{-6}$ if T-BACT is not used, or $10x10^{-6}$ if T-BACT is applied, that the hazard indices be less than 1.0 and the cancer burden be under 0.5. The subject project does not have the potential to increase TAC emissions and is therefore exempt from the requirements of this rule (Section 1401(g)(1)(B)).

Reg XVII – Prevention of Significant Deterioration

This regulation applies to emissions of pollutants for which compliance with ambient air standards has been attained in the South Coast Air Basin. These include NO_2, SO_2, CO and lead. The project does not result in an increase in emissions of these pollutants and therefore it is not subject to the requirements of this regulation.

Reg. XX - RECLAIM

This facility is subject to Reg. XX, RECLAIM with respect to NOx and SOx emissions. The project does not impact emissions of these pollutants, and therefore there are no additional requirements for the Hydrocracker Unit, Reaction Section under this regulation.

Reg. XXX - TV Operating Permits

The facility is subject to Reg XXX and a Title V permit was issued on September 1, 2009. The project results in a Minor Permit Amendment of the Title V permit, as defined in Rule 3000. As such, it is subject to the 45 day EPA review process.

40 CFR 63, Subpart CC, NESHAPs for Petroleum Refineries

This regulation is applicable to facilities which are major sources of Hazardous Air Pollutants (HAP)s, defined as those with a potential to emit 10 tons per year of a single HAP or potential to emit 25 tons per year of a combination of HAPs. The regulation states standards for equipment leaks from refinery process units. Section 63.648 requires that existing sources meet the equipment leak standards stated in 40 CFR 60 Subpart VV. In general, the equipment leak and inspection standards under District Rule 1173 are more stringent than the requirements of this regulation; but pertinent requirements of this regulation have been incorporated in BP's Inspection and Monitoring Program.

RECOMMENDATION:

Issue the Permit to Construct with the following conditions:

S13.2 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1123

[RULE 1123, 12-7-1990]

[Systems subject to this condition: Process 8, System 1]

S31.9 The following BACT requirements shall apply to VOC service fugitive components associated with the devices that are covered by application number(s) 450816, 450822, 450823, 450824, 450840, 450841:

All open-ended valves shall be equipped with cap, blind flange, plug, or a second valve

All pressure relief valves shall be connected to closed vent system or equipped with rupture disc

All new process drains installed as a result of this project shall be equipped with a water seal

All sampling connections shall be closed-purge, closed-loop, or closed-vent system

All new valves in VOC service installed as a result of this project shall be of leakless type, except those specifically exempted by Rule 1173 or approved by the District in the following applications: heavy liquid service, control valves, instrument piping/tubing, applications requiring torsional valve stem motion, applications where failures could pose safety hazards (e.g. drain valves with valve stems in horizontal position), retrofits with space limitations, and valves not commercially available

For the purpose of this condition, leakless valve shall be defined as any valve equipped with sealed bellow or equivalent as approved in writing by the District prior to installation. Components shall be defined as any valve, flange, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sight-glass, and meter, which are not exempted by Rule 1173

All accessible pumps, compressors, and atmospheric PRDs shall be audio-visually inspected once per 8 hr shift. All accessible components in light liquid/gas/vapor and pumps in heavy liquid service shall be inspected quarterly, except for pumps in light liquid service and valves in gas/vapor or light liquid service which shall be inspected monthly when required per CFR60 Subpart GGG. All inaccessible or difficult to monitor components in light liquid/gas/vapor service shall be inspected annually

The following leaks shall be repaired within 7 calendar days - All light liquid/gas/vapor components leaking at a rate of 500 to 10,000 ppm, heavy liquid components leaking at a rate of 100 to 500 ppm or greater than 3 drops/minute, unless otherwise extended as allowed under Rule 1173. The following leaks shall be repaired within 2 calendar days - any leak between 10,000 to 25,000 ppm, any atmospheric PRD leaking at a rate of 200 to 25,000 ppm, unless otherwise extended as allowed under Rule 1173

The following leaks shall be repaired with in 1 calendar day - any leak greater than 25,000 ppm, heavy liquid leak greater than 500 ppm, or light liquid leak greater than 3 drops per minute

If 98.0 percent or greater of the new valve and the new flange population inspected is found to leak gaseous or liquid volatile organic compounds at a rate less than 500 ppm for two consecutive months, the operator may revert to a quarterly inspection program with the approval of the executive officer. This condition does not apply to leakless valves

The operator shall keep records of the monthly inspection (and quarterly where applicable), subsequent repair, and reinspection, in a manner approved by the District

The operator shall provide to the District, no later than 90 days after initial startup, a recalculation of the fugitive emissions based on actual components installed and removed from service. The operator shall also submit a complete, as built, piping and instrumentation diagram(s) and copies of requisition data sheets for all non-leakless type valves with a listing of tag numbers and reasons why leakless valves were not used

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Systems subject to this condition: Process 8, System 1]

S46.1 The following conditions shall apply to VOC service fugitive components in this system:

For the purpose of this condition, leakless valve shall be defined as any valve equipped with sealed bellow or equivalent as approved in writing by the District prior to installation. Components shall be defined as any valve, flange, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sight-glass, and meter, which are not exempted by Rule 1173.

For the purpose of this condition, existing component shall be defined as any component that was installed under a permit to construct/operate that was issued prior to June 1, 1993. New component shall be defined as any component that was installed or modified under a permit to construct that was issued between June 1, 1993 and December 27, 2001.

All new valves in VOC service shall be of leakless type, except those specifically exempted by Rule 1173 or approved by the District in the following applications: heavy liquid service, control valves, instrument piping/tubing, applications requiring torsional valve stem motion, applications where failures could pose safety hazards (e.g. drain valves with valve stems in horizontal position), retrofits with space limitations, and valves not commercially available.

All new valves and new major components, as defined in Rule 1173, shall be physically identified in the field with special marking that distinguishes the components from existing. Additionally all new components shall be distinctly identified from existing components through their tag numbers (e.g. numbers ending in the letter "N"), and shall be noted in the records.

All new components in VOC service with a leak greater than 500 ppm but less than 1,000 ppm, as methane, measured above background using EPA Method 21, shall be repaired

within 14 days of detection. A leak greater than 1,000 ppm shall be repaired according to Rule 1173.

All new pressure relief valves shall be connected to closed vent system or equipped with rupture disc.

All new sampling connections shall be closed-purge, closed-loop, or closed-vent system.

All components are subject to 40CFR60, Subpart GGG.

[RULE 1173, 5-13-1994; RULE 1173, 2-6-2009; RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; 40 CFR 60 Subpart GGG, 6-2-2008]

[Systems subject to this condition: Process 8, System 1]

S46.2 The following conditions shall apply to VOC service fugitive components in this system:

For the purpose of this condition, leakless valve shall be defined as any valve equipped with sealed bellow or equivalent as approved in writing by the District prior to installation. Components shall be defined as any valve, flange, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sight-glass, and meter, which are not exempted by Rule 1173.

For the purpose of this condition, existing component shall be defined as any component that was installed under a permit to construct/operate that was issued prior to June 1, 1993. New component shall be defined as any component that was installed or modified under a permit to construct that was issued between June 1, 1993 and December 27, 2001.

The operator shall provide to the District, no later than August 29, 2003, a complete, as built, process instrumentation diagram(s) with a listing showing by functional grouping, location, type, accessibility, and application of each new valve in VOC service. The operator shall provide copies of requisition data sheets for all non-leakless type valves with a listing of tag numbers and reasons why leakless valves were not used.

The operator shall provide to the District, no later than August 29, 2003, a list of the following components broken down into the categories contained in District Form E-18A entitled "Fugitive Component Count": existing components, new components proposed to be installed under applicable permit(s) to construct, and new components that were actually installed under applicable permit(s) to construct.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996]

[Systems subject to this condition: Process 8, System 1]

S56.1 Vent gases from all affected devices of this process/system shall be directed to a gas recovery system, except for venting from those equipment specifically indicated in a permit condition, and for the following vent gases which may be directed to a flare:

1) Vent gases during an emergency as defined in Rule 1118(b)(2) ;

2) Vent gases during startups or shutdowns as defined in Rule 1118(b)(21) and (b)(19), respectively, provided that all flares have been operated in accordance with flaring minimization procedures as described in Rule 1118(c)(4); and

3) Vent gas due to essential operating need, as defined in Rule 1118(b)(4)(a) that would result in a temporary fuel gas system imbalance, or as defined in Rule 1118(b)(4)(c) that would result in streams that cannot be recovered due to incompatibility with recovery system equipment or with refinery fuel gas systems, provided that all flares have been operated in accordance with flaring minimization procedures as described in Rule 1118(c)(4).

The flaring minimization procedures and any subsequent changes shall be submitted to the district as described in Rule 1118(c)(3).

This process/system shall not be operated unless its designated flare(s) and the gas recovery system are both in full use and have valid permits to receive vent gases from this system.

Vent gases shall not be released to the atmosphere except from the existing safety devices or relief valves on the following equipment:

Process 1, System 2: 10, 12, 14
Process 1, System 3: 19, 20, 24 to 26
Process 1, System 5: 35, 39, 41, 42, 2726
Process 1, System 6: 43, 49, 57, 58
Process 1, System 7: 59, 60, 61, 62
Process 2, System 1: 74, 77, 2388
Process 2, System 2: 82, 89, 90, 92, 2389
Process 2, System 3: 94, 95
Process 2, System 5: 98, 101, 102
Process 2, System 6: 111, 112, 113
Process 2, System 11: 159, 160
Process 3, System 1: 164 to 167, 170, 172 to 181, 184, 1336 to 1349, 2382, 2387
Process 3, System 2: 186, 188, 189, 191, 196, 199, 201, 204, 1352 to 1355

Process 3, System 4: 241
Process 3, System 6: 242, 245 to 247, 249
Process 3, System 7: 1363
Process 4, System 1: 253 to 256, 258, 262, 265, 268, 270, 272, 277, 278, 282, 283. 287, 1364, 1366, 1367, 1372, 1374 to 1376, 1378 to 1381
Process 4, System 2: 291, 1400 to 1403
Process 4, System 3: 292, 293, 297, 299
Process 4, System 4: 302, 304
Process 4, System 5: 308, 310, 311
Process 4, System 7: 1975 to 1977, 1980, 1981, 1986
Process 5, System 1: 314 to 317, 319, 320, 323 to 332
Process 5, System 2: 335 to 338, 340, 343, 348 to 353
Process 5, System 3: 356, 360, 1413
Process 5, System 4: 401, 406, 407, 412, 414
Process 6, System 1: 426, 427, 429, 431, 434 to 437, 440, 444, 445, 451, 454 to 456, 458, 460
Process 6, System 2: 462, 469, 474 to 481, 483, 486
Process 6, System 3: 490, 494, 495, 498, 501, 503, 506, 507, 509, 510, 512, 513, 518, 520, 521, 525 to 528
Process 7, System 1: 542 to 548, 550, 552 to 558, 560, 562 to 569
Process 7, System 2: 2892, 2893
Process 8, System 1: 583, 584, 593 to 597
Process 8, System 2: 608, 610, 612 to 614, 622, 624
Process 9, System 1: 631, 632, 638 to 652, 659 to 663, 666 to 668, 1482, 1483, 1486 to 1488, 1491, 1493 to 1495, 1497 to 1502, 1528, 1533 to 1536, 2019
Process 9, System 2: 672 to 681, 685
Process 9, System 9: 637, 653, 656, 658, 664
Process 10, System 1: 706
Process 10, System 2: 709, 711 to 715, 720, 721
Process 10, System 3: 725
Process 11, System 1: 730
Process 12, System 1: 756, 759
Process 12, System 2: 760 to 762, 764
Process 12, System 3: 765 to 770
Process 12, System 4: 771, 772, 774
Process 12, System 8: 785, 790, 2365, 2366
Process 12, System 9: 794, 797 to 799
Process 12, System 10: 806
Process 12, System 12: 815, 818
Process 12, System13: 823, 826, 828
Process 12, System 22: 853, 854

Process 12, System 24: 860, 861, 863, 864, 865
Process 12, System 25: 866, 867, 869, 870, 871, 2003
Process 12, System 27: 873 to 875
Process 15, System 7: 1644 to 1646, 1648, 1649
Process 16, System 3: 2115 to 2120, 2353, 2394
Process 24, System 1: 1304
Process 24, System 2: 1307
Process 24, System 4: 1315, 1316, 1319, 1323 to 1325, 1659

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996]

[Systems subject to this condition: Process 8, System 1]

E193.18 The operator shall construct, operate, and maintain this equipment according to the following specifications:

The operator shall comply with all mitigation measures stipulated by the AQMD Certified EIR SCH # 2005111057 dated 9/15/06

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition: D576, D577]

H23.3 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1173
VOC	40CFR60, SUBPART	GGG

[RULE 1173, 5-13-1994; RULE 1173, 2-6-2009; 40CFR 60 Subpart GGG, 6-2-2008]

[Devices subject to this condition: D2494]